

# Magnetic Lock

## Installation Guide V1.0.0



## Revision History

| Date     | Manual Version | Description     | Author |
|----------|----------------|-----------------|--------|
| 1/9/2023 | V1.0.0         | Initial release | ZW5988 |

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# 1 Overview

This manual is applicable to:

280kg magnetic locks and accessories: single door magnetic lock (OEA-ML12-280), double door magnetic lock (OEA-ML22-280), single door magnetic lock L-bracket (OEA-MS12-280L), double door magnetic lock L-bracket (OEA-MS22-280L), U-bracket (OEA-MS12-280U), and Z-bracket (OEA-MS12-280Z).

500kg magnetic locks and accessories: single door magnetic lock (OEA-ML12-500), double door magnetic lock (OEA-ML22-500), single door magnetic lock L-bracket (OEA-MS12-500L), magnetic lock Z-bracket (OEA-MS12-500Z), and double door magnetic lock L-bracket (OEA-MS22-500L).

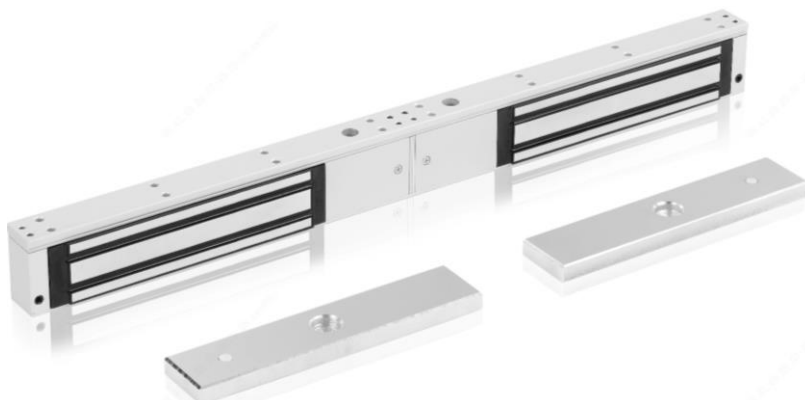
Magnetic locks are mainly used for fire and glass doors in office buildings, community entrances and exits, etc., and can also be used for narrow frame and frameless glass doors with auxiliary brackets.

# 2 Appearance

OEA-ML12-280 Single Door Magnetic Lock



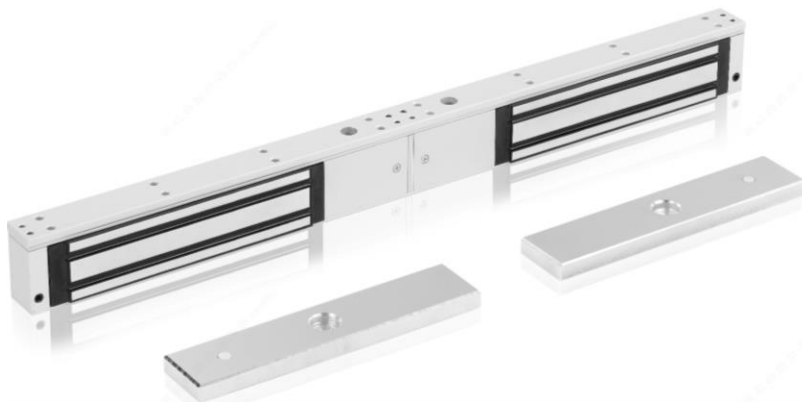
OEA-ML22-280 Double Door Magnetic Lock



OEA-ML12-500 Single Door Magnetic Lock




OEA-ML22-500 Double Door Magnetic Lock



# 3 Preparations

## 3.1 Check the Components

280kg single door magnetic lock:

| No. | Name  | Image  | Quantity |
|-----|---|--|----------|
| 1   | Single door magnetic lock<br>(OEA-ML12-280) |  | 1        |

|   |  |  |   |
|---|--|--|---|
|   | Double door magnetic lock<br>(OEA-ML22-280)  |  | 1   |
| 2 | Double door magnetic lock L-bracket<br>(OEA-MS22-280L)<br>Single door magnetic lock L-bracket<br>(OEA-MS12-280L) |  | 2<br>(Double door magnetic lock L-bracket include two single door magnetic lock L-brackets) |
| 3 | U-bracket<br>(OEA-MS12-280U)   |  | 1   |
| 4 | Z-bracket<br>(OEA-MS12-280Z)   |  | 1   |





500kg single door magnetic lock:

| No. | Name  | Image | Quantity |
|-----|---|-------|----------|
| 1   | Single door magnetic lock<br>(OEA-ML12-500) |       | 1        |

|   |  |  |   |
|---|--|--|---|
|   | Double door magnetic lock<br>(OEA-ML22-500)  |  | 1   |
| 2 | Double door magnetic lock L-bracket<br>(OEA-MS22-500L)<br>Single door magnetic lock L-bracket<br>(OEA-MS12-500L) |  | 2<br>(Double door magnetic lock L-bracket include two single door magnetic lock L-brackets) |
| 3 | Z-bracket<br>(OEA-MS12-500Z)   |  | 1   |

### 3.2 Prepare Installation Tools

| Tool                 | Image | Description                                     |
|----------------------|-------|---|
| Phillips screwdriver |       | Used to tighten fixing screws.                  |
| Protective gloves    |       | Used to protect your hands during installation. |
| Screwdriver set      |       | Used to tighten fixing screws.                  |

|              |  |  |
|--------------|--|--|
| Tape measure |   | Used to measure the installation height.   |
| Hammer drill |   | Used to drill holes for screws, 8mm drill bit.<br>6.8mm drill bit (only required for single-sided reinforced doors). |
| Hand tap set |   | Used to tap on a metal sheet, 8mm tap (only required for single-sided reinforced doors).                             |
| L-key        |  | Used to loosen/tighten hex socket screws.  |

## 4 Installation

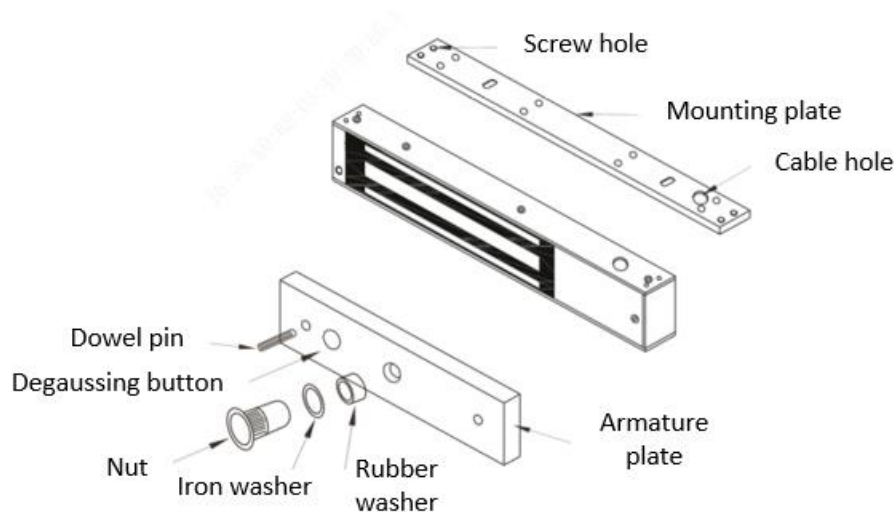
### 4.1 Precautions

1. Be sure to wear gloves before installation.
2. OEA-ML12-500 series magnetic lock is heavy, so be sure to check whether the door can hold it before installation.
3. Check if there is an available power supply (DC12V&DC24V) at the installation site.
4. The supplied rubber ring must be installed between the armature plate and the door for shock absorption.
5. Do not screw the armature plate too tightly, so that the rubber ring can maintain proper elasticity and the armature plate can automatically adjust to maximize the pulling force of the lock.
6. Be sure to install the two dowel pins behind the armature plate, and ensure that the dowel pin hole is not less than 5.5mm, so as to ensure that the armature plate is not offset, and can flexibly adjust to achieve the maximum effect of suction between the armature plate and the lock body.
7. Be careful to protect the armature plate and the lock body suction surface during installation, otherwise it will affect the pulling force and normal use of the product.
8. During installation, the center of the armature plate and the center of the lock body shall not deviate by more than 3mm, otherwise it will affect the pulling force and normal use of the product.

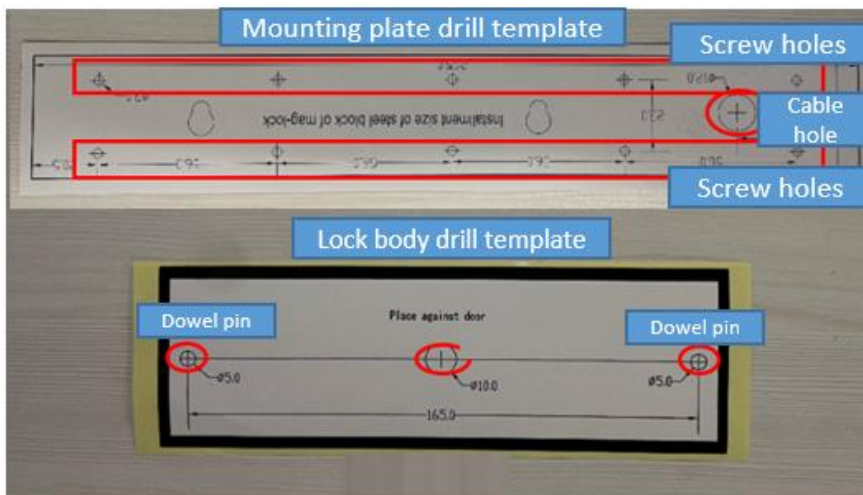


## 4.2 Install the Lock

The four magnetic locks introduced in this manual are installed in the same way. The following takes OEA-ML12-500 single door magnetic lock as an example. This magnetic lock is suitable for wooden, glass, iron, and security doors.



1. Mark the mounting plate and lock body.
  - Fold the drill template along the dotted line and attach it to the desired installation location.
  - Mark and drill holes using the template (**select drill bits according to the template**).



2. Remove the mounting plate.
  - Use a Phillips screwdriver to remove the two screws on the top of the lock body.



- Loosen the screw on the lock cover and remove the cover, and then use the supplied L-key to remove the two tamper-proof screws.



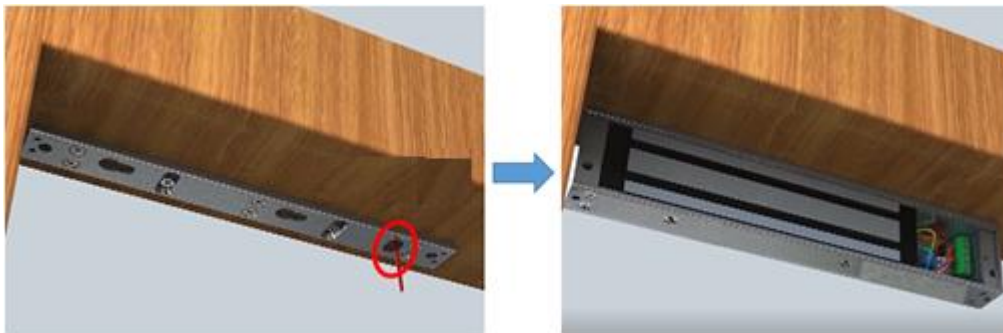
- Loosen the bottom bolts using the L-key, and remove the mounting plate.



3. Fix the mounting plate to the location marked in step 1 and secure it with screws.



4. Install the lock body.
  - Lead the cables required (DC12 or DC24V) out through the cable hole.
  - Fix the lock body to the mounting plate and connect the cables.



5. Install the armature plate.
  - Hammer the dowel pins into the armature plate to prevent it from rotating.
  - Install screws on the back of the door (use rubber and metal washers if necessary).
  - Fix the armature plate to the door with a little space reserved for it to move, adjust the lock body and armature plate to ensure that they are parallel and can be fully sucked into place, and then tighten the middle screw.





**NOTE!**

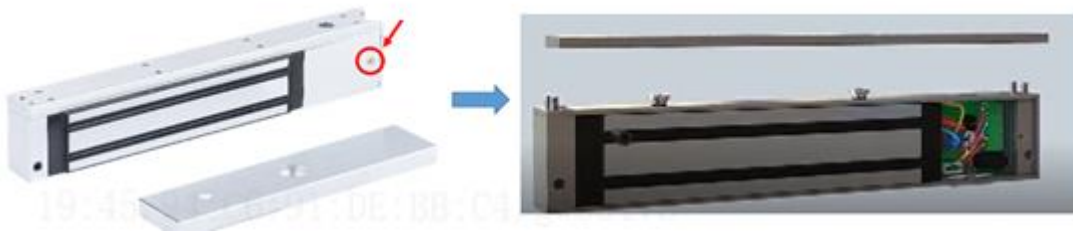
Washers are used to make the connection between the armature plate and the lock body tight.

## 4.3 Install the Lock with Brackets

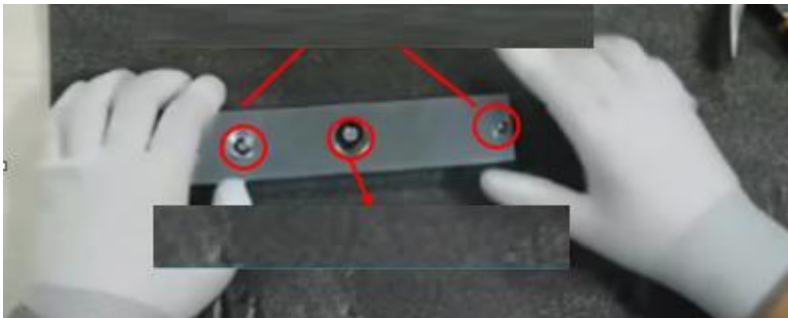
### 4.3.1 L-bracket

L-bracket is applicable to outswing doors (door frame width is less than 30mm).

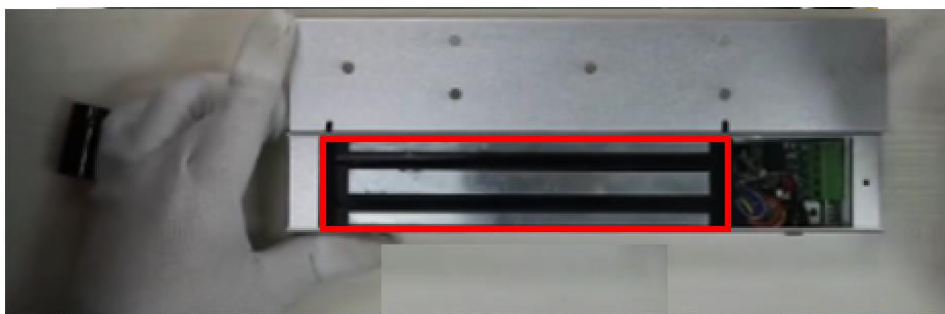
1. Remove the mounting plate and lock cover.



2. Hammer the dowel pins into the armature plate.



3. Mark the armature plate position on the L-bracket.



4. Attach the drill template of the armature plate to the desired installation location on the door and drill holes (two 4.5mm diameter and 10mm deep holes, one 8mm diameter hole through the door) according to the template.



5. Hammer a mushroom head screw into the 8mm diameter hole to expand its diameter to 12mm.



6. Mount the armature plate to the door with a rubber washer spaced to fit tightly with the lock body. Add more washers if necessary.



7. Align the L-bracket with the armature plate and fix it on the top jamb directly above the plate, and then secure the lock body to the L-bracket.





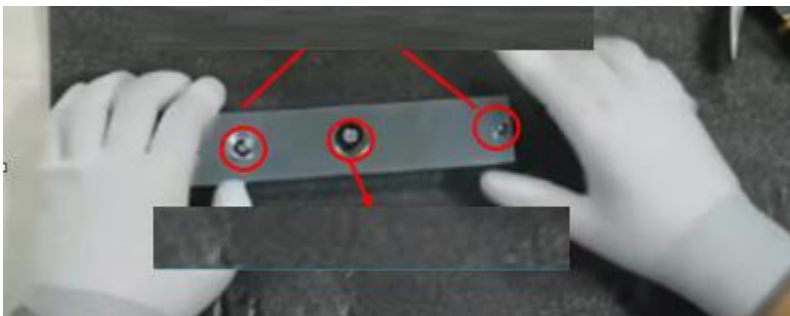
### 4.3.2 U-bracket

U-bracket is applicable to 8mm to 12mm thick frameless glass doors.

1. Remove the mounting plate and lock cover.
2. Mark the armature plate position on the mounting plate, and mark the mounting plate position on the top jamb and door head.



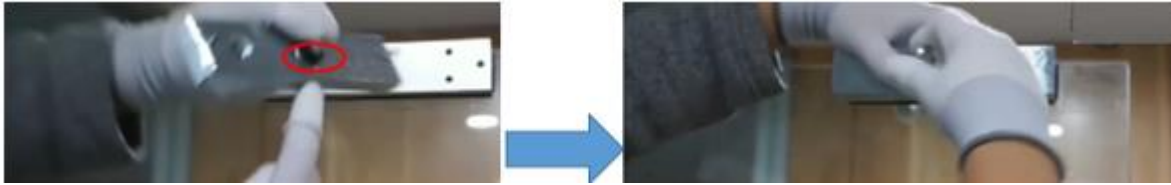
3. Hammer the dowel pins into the armature plate.



4. Place the sponge strips parallel in the U-bracket. Align the groove of the U-bracket with the top jamb, push the U-bracket upward until it fits the top jamb completely, and then secure it with four screws.



5. Fix the armature plate to the U-bracket with a rubber washer spaced to fit tightly with the lock body. Add more washers if necessary.



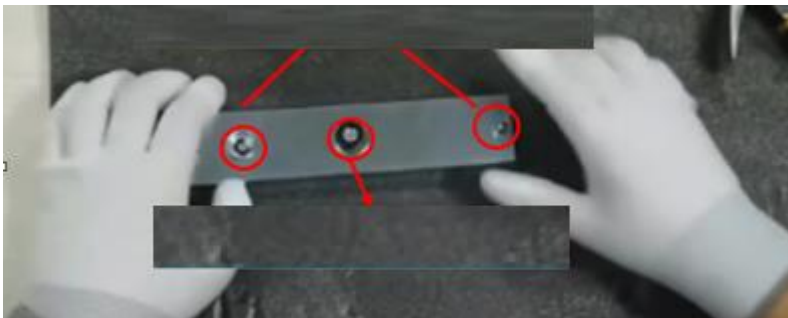
6. Fix the mounting plate to the top jamb, and then fix the lock body to the mounting plate with hex socket screws.



### 4.3.3 ZL-bracket

ZL-bracket is applicable to inswing doors.

1. Remove the mounting plate and lock cover.
2. Hammer the dowel pins into the armature plate.



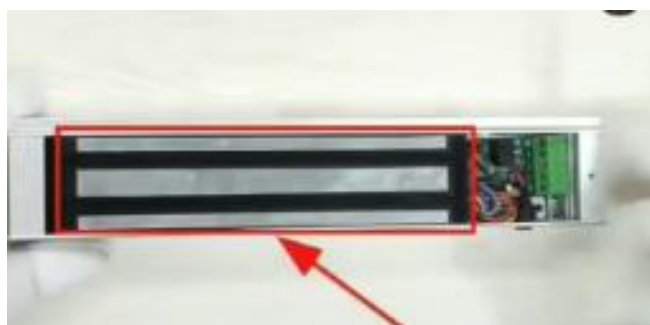
3. Fit the armature plate and Z-bracket together with a rubber washer spaced to fit tightly with the lock body. Add more washers if necessary.



4. Mount the Z-bracket to the door.



5. Mark the armature plate position on the L-bracket.



6. Mount the L-bracket to the top jamb.





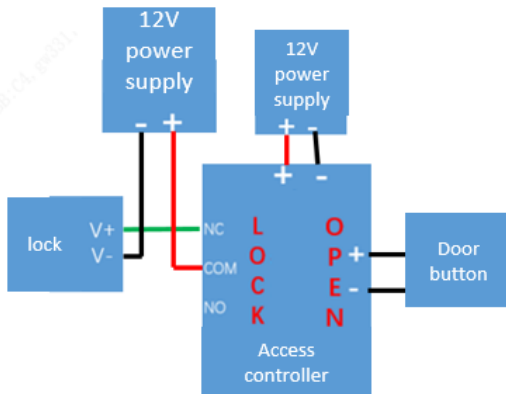
7. Fix the lock body to the L-bracket with hex socket screws.

# 5 Wiring

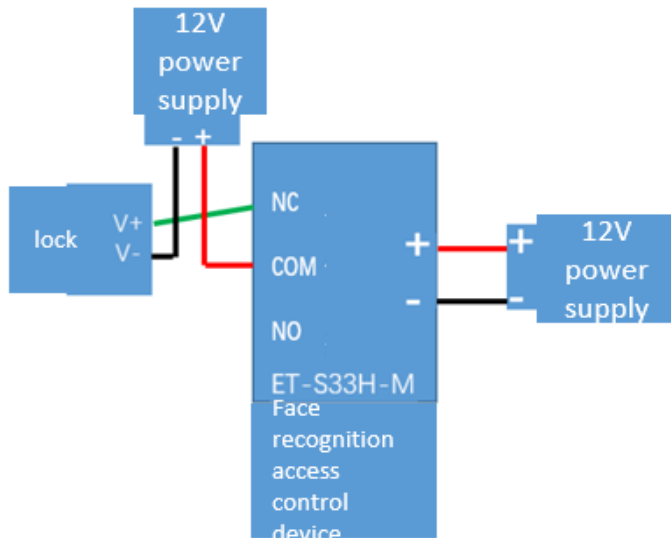
## 5.1 Single Door Magnetic Lock Wiring

The operating voltage of the single-door magnetic lock is DC12V/24V, the operating current of OEA-ML12-280 is 460mA/230mA, and the operating current of OEA-ML12-500 is 600mA/300mA. Power supplies are sold separately.

### 1. Wiring to access controllers



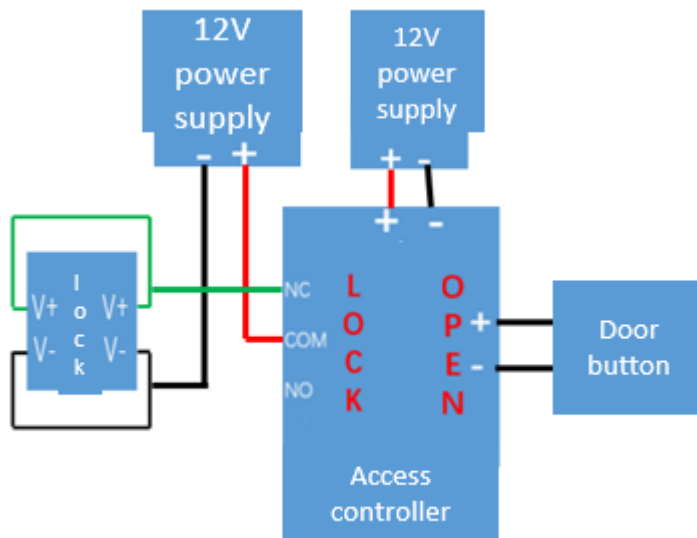
2. Wiring to face recognition access control devices



## 5.2 Double Door Magnetic Lock Wiring

The operating voltage of the double-door magnetic lock is DC12V/24V, the operating current of OEA-ML22-280 is 460mA\*2/230mA\*2, and the operating current of OEA-ML22-500 is 600mA\*2/300mA\*2. Power supplies are sold separately.

1. Wiring to access controllers (synchronous control of two door leaves)



2. Wiring to face recognition access control devices (synchronous control of two door leaves)

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